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**Certificate of Priority Relating to the Filing
of a Patent Application****Serial Number:** 202 10 741.8**Filing Date:** 16 July 2002**Applicant/Owner:** TRW Automotive Safety Systems GmbH & Co KG,
Aschaffenburg/Germany**Title:** Vehicle Steering Wheel**IPC:** B 62 D, B 60 R

The attached documents are a correct and true copy of the original
documents of this utility model application.

Munich, dated 5 June 2003
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A Vehicle Steering Wheel

The invention relates to a vehicle steering wheel with a skeleton and a detent element as part of a detent connection for a gas bag module which is able to be connected to the skeleton.

5 In recent years it has been found that in particular detachable connections between the gas bag module and the steering wheel, with the use of detent elements arranged on the module and on the steering wheel skeleton, satisfy the requirements which regard to safety technology. These connections are distinguished by the module being easy to install.

10 The invention provides an improvement to a steering wheel with such a detent connection; in particular it provides for a reduced structural volume.

This is achieved in an above-mentioned steering wheel in that at least one separate support component is arranged on the skeleton, which support component carries a detent pin as detent element which can engage into a second 15 detent element arranged on the module and complementary to the detent pin. Through the use of a support component, the necessary stability of the steering wheel skeleton can be easily achieved, so that the base of the steering wheel hub, with at the same time a high degree of stability, can be constructed very simply. The construction according to the invention also makes it possible to arrange a

- 2 -

generally space-intensive unlocking mechanism on the gas bag module, whereby in the region of the hub base only a minimum structural space has to be available.

Preferably, the support component is a metal plate.

During the casting of the skeleton, the support component is usually embedded
5 therein.

Preferably, the skeleton is provided with a recess around the detent pin, the support component even being able to be exposed, in order to save space.

The single figure shows a sectional view of a cut-out of a steering wheel according to the invention.

10 The skeleton 10 of the steering wheel has a hub region 12 with a hub base, which forms the lower part of a cavity to receive a gas bag module 13, which is only shown here by way of indication.

15 Preferably several assemblies of respectively a support component 14 and a detent pin 16, which forms a detent element, securely connected in a suitable known manner with the support component 14, are fastened to the skeleton 10.

During casting, the support component 14 is placed into the mould and therefore embedded into the skeleton 10 in the regions 18. The support component 14 preferably consists of a metal plate. Around the detent pin 16, the skeleton 10 has a recess 22, so that the support component 14 is partially exposed.

20 In the finished steering wheel, the detent pin 16, the support component 14 and the hub region 12 are firmly connected with each other.

The detent pin 16 can have any shape which is suitable to enter into a detent connection with a complementary detent element. In the example shown here, a detent surface 17 is formed at the head of the detent pin.

25 The gas bag module 13 has detent elements 20 complementary to the detent pin 16, which are preferably fastened to the underside of the gas bag module and

- 3 -

are realized for example by a spring wire in each case. On pushing the gas bag module 13 into the cavity of the steering wheel, the detent element 20 enters into a detent connection with the detent surface 17 of the detent pin 16. Preferably, an unlocking mechanism, not shown here, is provided on the gas bag module 13, by means of which the gas bag module can be separated from the steering wheel again.

- 4 -

Claims

1. A vehicle steering wheel with a skeleton (10) and a detent element as part of a detent connection for a gas bag module (13) which is able to be connected to the skeleton (13),
5 characterized in that at least one separate support component (14) is arranged on the skeleton (10), which support component (14) carries a detent pin (16) as detent element which can engage into a detent element (20) arranged on the gas bag module (13) and complementary to the detent pin (16).
- 10 2. The vehicle steering wheel according to Claim 1, characterized in that the support component (14) is arranged on the skeleton of a hub cup (12) of the steering wheel.
- 15 3. The vehicle steering wheel according to Claim 1, characterized in that the support component (14) is a metal plate.
4. The vehicle steering wheel according to any of the preceding claims,
15 characterized in that the support component (14) and the detent pin (16) form a prefabricated assembly.
5. The vehicle steering wheel according to any of the preceding claims,
characterized in that the support component (18) is embedded into the cast skeleton (10, 12) of metal.
- 20 6. The vehicle steering wheel according to Claim 5, characterized in that the skeleton (18) has a recess around the detent pin (16).

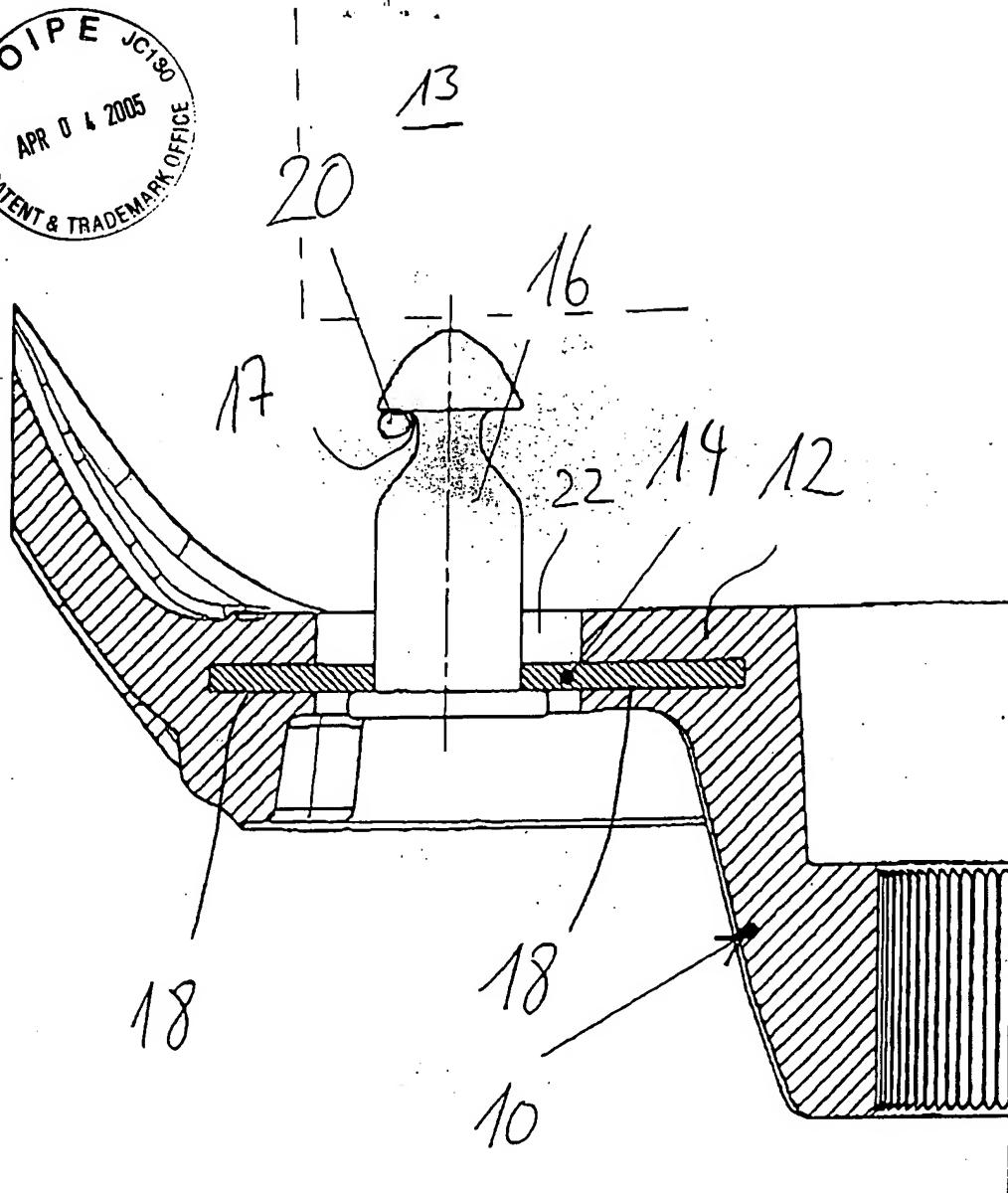


Fig. 1



CERTIFICATE

I, Thomas Kitzhofer, of Manzingerweg 7, 81241 München, Germany, declare that I am conversant with the German and English languages, and that to the best of my knowledge and belief the accompanying text is a true translation of the priority document issued by the German Patent and Trade Mark Office on 5 June 2003 for Serial No. 202 10 741.8.

Signed this 21st day of February 2005

T. Kitzhofer

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